

the only portion of the Akao reference being used are the oxidoreductase and the solid neutralizing agent.

The present claims clearly require the combination of a) enzymatic activity of the enzyme system is activated by moisture of the packaged product to b) scavenge oxygen from headspace within the packaged product, via c) an enzymatic oxidase and/or catalase reaction, while d) the neutralizing agent neutralizes acid produced during enzymatic consumption of said energy source and maintains a stable pH during said enzymatic consumption. That is, if other components (such as iron) are present in such quantities such that the primary mode of oxygen scavenging is not moisture activated and through the enzymatic oxidase and/or catalase reaction, then such other components would be outside the “consisting essentially of” claim as explicitly claimed. Akao does not disclose or suggest use of sodium bicarbonate as a neutralizing agent, and the possible simultaneous use in the Lehtenen/Akao combination of both “glucose oxidase” in combination with a mixture wherein iron (or a different, unlisted non-enzymatic oxygen scavenger) provided the principle oxygen scavenging function would be outside the presently claimed invention. In contrast, adding an insignificant amount of iron, which does not affect the claimed basic and novel enzymatic oxygen scavenging operation at stable pH of the invention, would not be outside claim 1. With no teaching, suggestion or motivation to pluck the sodium bicarbonate out of the laundry list of other materials disclosed for use inside the thermoplastic sheet material and away from the “iron as the principal component” and similar materials of Akao, the oxygen scavenger would not function as claimed, and the rejection of all claims 1-30 based upon combining Lehtenen with Akao should be withdrawn.

Further, it is understood that metal ions such as Fe^{2+} generally have an inhibitive effect on glucose oxidase reactions. See Nakamura et al., “Mode of Inhibition of Glucose Oxidase by Metal Ions”, J. Biochem, 1968, Vol. 64, No. 4 439-447; Guascito et al., “Inhibitive determination of metal ions by an amperometric glucose oxidase biosensor: Study of the effect of hydrogen peroxide decomposition”, Sensors and Actuators B: Chemical, Volume 131, Issue 2, 14 May 2008, Pages 394-402. Accordingly, a worker skilled in the art would not expect that the iron-based oxidoreductase of Akao could be successfully used in conjunction with the Lehtonen oxygen scavenger.

As significantly, claims 29 and 30 are **“consisting of”** claims which clearly exclude the addition of an oxygen scavenger “having iron powder as the principal component” or other non-

enzymatic oxygen scavengers from the claimed composition. Because claims 29 and 30 clearly exclude the use of Akao's oxidoreductase, claims 29 and 30 are allowable. Reconsideration and notice to that effect are respectfully requested.

The application containing pending claims 1-30 is in condition for allowance. Reconsideration and notice to that effect is respectfully requested. The Examiner is invited to contact the undersigned at the telephone number listed below if such a call would in any way facilitate allowance of the application.

The Commissioner is authorized to charge payment of any additional fees associated with this paper or credit any overpayment to Deposit Account No. 50-2998, Deposit Account Name Shewchuk IP Services.

Respectfully submitted,

SHEWCHUK IP SERVICES, LLC

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By /JDS/
Jeffrey D. Shewchuk, Reg. No. 37,235
3356 Sherman Ct., Ste. 102
Eagan, MN 55121
Telephone: (651) 331-9558
Fax: (651) 688-3348

JDS: